

New York State Department of Transportation

Yellow Flag NB2258W020

By: Alex Abreu

Flag Date: October 18, 2022

Superseding Information:

No Flags Superseded

Structure Information

BIN: 1065318

Feature Carried: 278I278IX2M23027

Feature Crossed: 6TH AVENUE

Orientation: 8 - NORTHWEST

Region: 11 - NEW YORK CITY

County: KINGS

Political Unit: City of NEW YORK

Approximate Year Built: 1962

Posted Load Matches Inventory : Yes

Bridge Load Posting (Tons) : Not Posted for Load

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party

Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 322

Verbal Notification Information

Person Notified: Heinz Joachim, P.E.

Date: October 18, 2022 2:00:00 PM

Of: NYSDOT Region 11

Signature Information

Signature: Alex Abreu, P.E. 099761-1

Date: October 21, 2022

Reviewed By: Robert Kemp

Date: October 21, 2022

Attachments: 12

Flagged Elements

Parent Element	Element	Total Quantity	Unit
Span Number : 92			
	PR311 - Movable Bearing	17	each

Flagged Condition Description

This Yellow Flag No. NB2258W020 is NEW.

Location: Bearing under Girder G13 on Span 93 side of Pier 92 located within scaffolding platforms installed by contractor (area located above intersection of 53rd Street and 3rd Avenue).

Description:

The bearing under Girder G13 on Span 93 Side at Pier 92 exhibits severe section loss with the begin side leg of the bearing and middle portion of the bearing base completely corroded away and 1/16"-1/4" Remaining Thickness Measured (RTM) for full width of end side of leg of bearing resulting in approximately 60%-90% section loss (Photos 5 and 6). Due to the severe section loss, the bearing is tilted towards the begin side. Both sides of the bearing are in contact with the keeper plates for approximately 1/4" high over 2" long area at the left side and approximately 3/16" high over 1-1/2" long area at the right side (Photos 8 and 9). Both guide plates are completely corroded away. The masonry plate exhibits pack rust up to 3/4" thick between top of pedestal (Photo 7). The pedestal below bearing exhibits no significant defects (Photo 4). The girder on Span 92 side of pier is framed into cap-beam and exhibits no significant defects. (refer to Yellow Flag Condition Sketch Photo #2 for more details)

This is a newly flagged condition.

Notes:

1. The girder end above the bearing exhibits 40% section loss (3/8" RTM) in the web area above the bearing and for the full web height along the guide angle with 70% section loss (3/16" RTM) in the upper web adjacent to the end side of the top cope with 4" high x 5" long corrosion hole in the upper web. The overall shear web area section loss is 40%. (Photos 10 thru 12).
2. Adjacent bearing under Girder G12 exhibits 25% section loss to the bearing components with guide plate partially corroded away.
3. Adjacent bearing under Girder G14 exhibits 10% section loss to the bearing components with 1/4" pack rust between the masonry plate and pedestal.
4. Scaffolding platform was installed by contract within span at the time of inspection so single lane closure in the right lane on 3rd Avenue WB between 52nd and 53rd with 60ft bucket truck was used to access platform.
5. Since contractor recently sandblasted the bearings within the platform spans, the underlying issues at the bearing (previously covered up with moderate to heavy corrosion) were able to be inspected and evaluated.
6. The previous 2021 Biennial Report documented the above bearing location as CS3 with the following condition state note:
Girders G1-G15 and Stringers S1 & S2 sliding bearings exhibit moderate to heavy corrosion around the perimeter of the bearing plates with 10-20% section loss. The guide bars exhibit heavy corrosion throughout. Bearings show no signs of movement and are frozen.

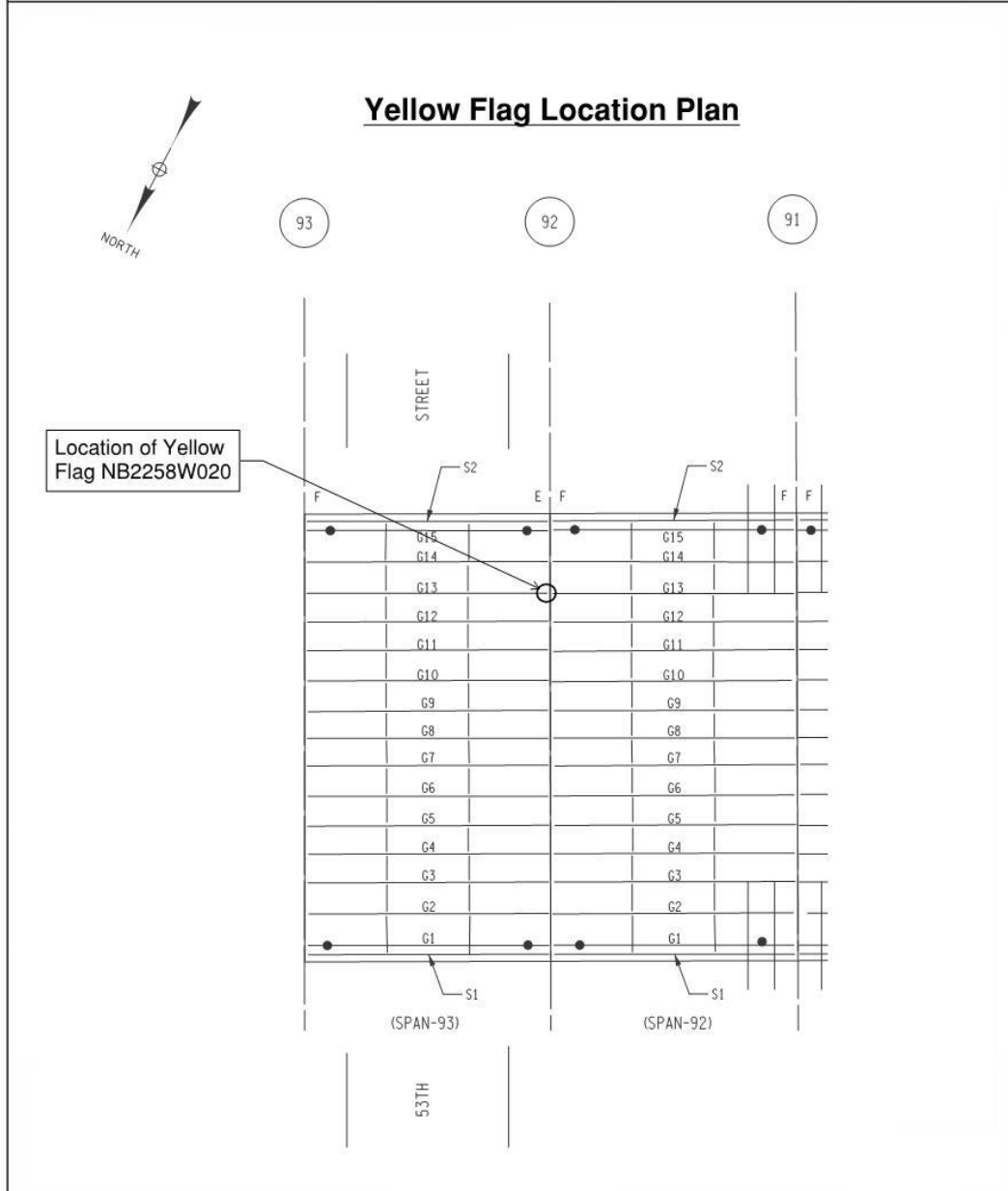
Flag PhotographsPhoto Number: **1**Photo Filename: **22_Flag Location Plan.jpg**Gowanus Expressway
2022 Biennial Inspection - Field SketchBIN: 1065318Team: AA/TSDate: 10/18/2022Span: 93Location: Bearing at G13 at Pier 92**wsp****Attachment Description: Yellow Flag Location Plan**

Photo Number: 2

Photo Filename: 22_Span 93_Bearing B13 at Pier 92_Detail.jpg

Gowanus Expressway
2022 Biennial Inspection - Field Sketch

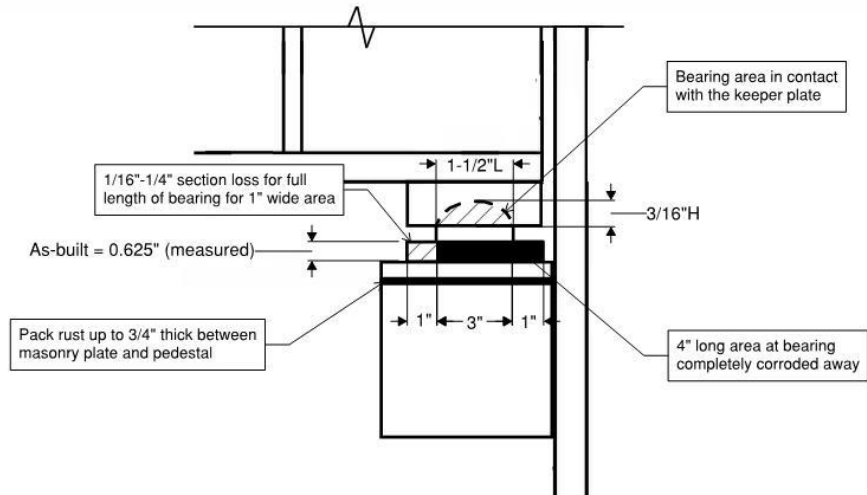
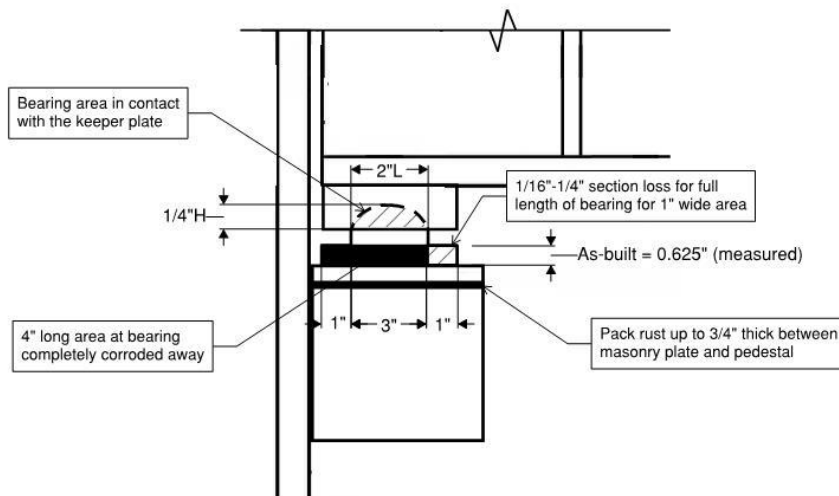
BIN: 1065318

Team: AA/TS

Date: 10/18/2022

Span: 93

Location: Bearing under G13 at Pier 92

**Right Face of Bearing B13****Left Face of Bearing B13**

SCALE: N.T.S.

wsp

Attachment Description: Yellow Flag Condition Sketch

Photo Number: 3

Photo Filename: 22_113_4211.JPG



Attachment Description: General view of the flagged condition at the bearing under Girder G13 in Span 93 at Pier 92. Looking Begin.

Photo Number: 4

Photo Filename: 22_113_4238.JPG



Attachment Description: Close up general view of the bearing under Girder G13 in Span 93 at Pier 92. The pedestal under the bearing exhibits no significant defects. Looking Begin and Left.

Photo Number: 5

Photo Filename: 22_113_4229.JPG



Attachment Description: The left face of the bearing under Girder G13 on Span 93 side of Pier 92. The begin side leg of the bearing and middle portion of the bearing base is completely corroded away. Looking Right.

Photo Number: 6

Photo Filename: 22_113_4231.JPG



Attachment Description: The end face of the bearing under Girder G13 on Span 93 side of Pier 92. The end side leg of the bearing exhibits 1/16"-1/4" RTM (approximately 60%-90% section loss) for the full length of the bearing for 1" wide. Looking Begin and Right.

Photo Number: 7

Photo Filename: 22_113_4235.JPG



Attachment Description: The end face of the bearing under Girder G13 on Span 93 side of Pier 92. There is pack rust up to 3/4" thick between the masonry plate and the top of the pedestal. Looking Begin and Right.

Photo Number: 8

Photo Filename: 22_113_4241.JPG



Attachment Description: The left face of the bearing under Girder G13 on Span 93 side of Pier 92. Due to the severe section loss, the bearing is tilted towards the begin side with top of bearing in contact with the keeper plate for 1/4" high over 2" long area at the left side. Also, the guide plate at the bearing is completely corroded away. Looking Right.

Photo Number: 9

Photo Filename: 22_113_4243.JPG



Attachment Description: The right face of the bearing under Girder G13 on Span 93 side of Pier 92. Due to the severe section loss, the bearing is tilted towards the begin side with top of bearing in contact with the keeper plate for 3/16" high over 1-1/2" long area at the right side. Also, the guide plate at the bearing is completely corroded away. Looking Left.

Photo Number: 10

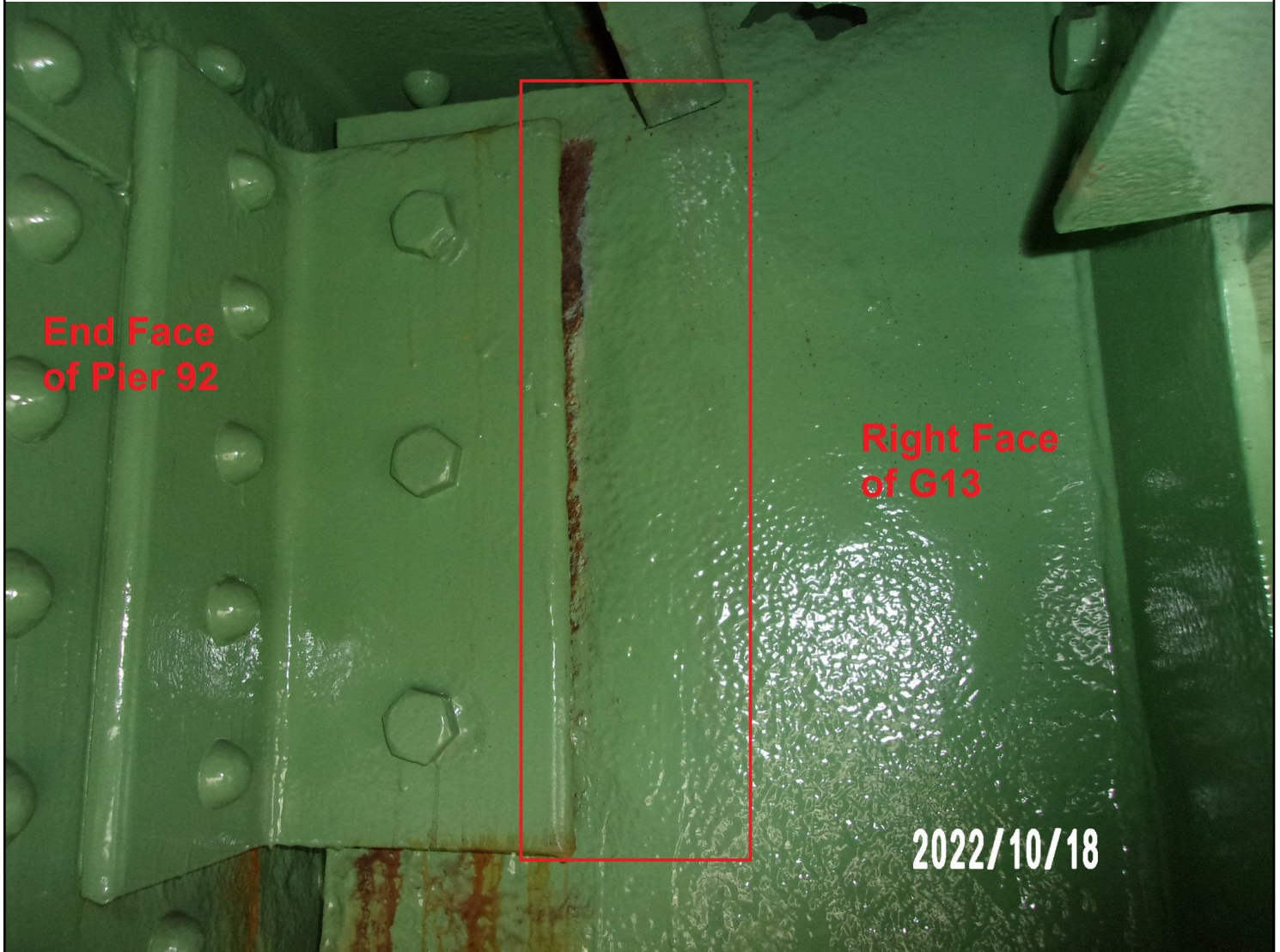
Photo Filename: 22_113_4217.JPG



Attachment Description: The right face of Girder G13 in Span 93 at Pier 92. The web area above the bearing exhibits 40% section loss. Looking Left.

Photo Number: 11

Photo Filename: 22_113_4219.JPG



Attachment Description: The right face of Girder G13 in Span 93 at Pier 92. The full height of the web along the guide angle exhibits 40% section loss. Looking Left.

Photo Number: 12

Photo Filename: 22_113_4221.JPG



Attachment Description: The right face of Girder G13 in Span 93 at Pier 92. The upper web of the girder adjacent to the end side of the top cope exhibits 70% section loss with corrosion hole in the upper web. Looking Left.